

Application No. 09/721,854

Amendment dated September 16, 2003

Reply to Office Action of June 19, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- B'*
1. (Original) A communications system, comprising:
a gateway, communicatively coupleable to a terrestrially-based network;
a communications platform disposed in a stratospheric location, for transponding information between at least one of a plurality of user terminals and the gateway.
 2. (Original) The communications system of Claim 1, wherein the gateway aggregates all data traffic comprising the information between the plurality of user terminals.
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3. (Original) The communications system of Claim 1, wherein the gateway aggregates all data traffic comprising the information between each of the user terminals and the terrestrially-based network.
 4. (Original) The communications system of Claim 1, wherein:
the user terminal includes a user terminal antenna characterizable by a beamwidth; and
the communications platform maintains an apparent position relative to the user terminal within the beamwidth of the user terminal antenna.
 5. (Original) The communications system of Claim 1, wherein the system comprises more than one communications platform.
 6. (Currently Amended) The communications system of Claim 5, wherein the gateway directly communicates with more than one communications platform.
 7. (Original) The communications system of Claim 6, wherein the user terminal communicates with only one communications platform.

8. (Original) The communications system of Claim 1, wherein the user terminal communicates with the communications platform in a first frequency band, and the communications platform communicates with the gateway in a second frequency band.

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9. (Currently Amended) The communications system of Claim 1, wherein the stratospheric location of [[he]] the communications platform is within a predetermined distance of the user terminal to maintain communications between the communications platform and the user terminal.

10. (Original) The communications system of Claim 1, wherein the gateway comprises a plurality of gateway antennae, separated from each other by a distance sufficient to provide spatial diversity in communicating with the communications platform.

11. (Original) The communications system of claim 10, wherein the user terminals communicate with the communications platform using a communication diversity selected from the group comprising:

spatial diversity; and
polarization diversity.

12. (Original) The communications system of Claim 1, wherein the system comprises at least two communication platforms in overlapping positions.

13. (Original) The communications system of claim 1, wherein each user terminal is associated with a cell and user terminals in overlapping cells communicate with different communications platforms through spatial diversity.

14. (Original) The communication system of Claim 1, wherein the information is transponded according to a coding technique selected from the group comprising time division multiple access (TDMA) and code division multiple access (CDMA).

15. (Original) A communications signal, generated by performing the steps of:
receiving a first signal from a user terminal having a user terminal antenna in a stratosphere-based communications platform, wherein the communications platform maintains an apparent position relative to the user terminal within a beamwidth of the user terminal antenna; and
transponding the first signal from the stratosphere-based communications platform to a gateway ground station.

16. (Original) The signal of claim 15, wherein the terrestrially-based network is the Internet.

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17. (Original) The signal of claim 15, wherein the first signal is transmitted in one of a plurality of beams to the gateway ground station having a plurality of antennae disposed to provide spatial diversity among each of the plurality of beams.

18. (Original) A method for communicating from a user terminal, comprising:
receiving a first signal from the user terminal having an antenna in a stratosphere-based communications platform, wherein the communications platform maintains an apparent position relative to the user terminal within a beamwidth of a user terminal antenna;
transponding the first signal from the stratosphere-based communications platform to a gateway ground station.

19. (Original) The method of claim 18, further comprising the steps of:
receiving the first signal from the gateway ground station in the communications platform;
and
transponding the first signal from the communications platform to a second user terminal.

20. (Original) The method of claim 18, further comprising the steps of:
transmitting the first signal from the gateway ground station to the terrestrially-based network.

21. (Original) The method of claim 20, wherein the terrestrially-based network is the Internet.

22. (Original) The method of claim 18, wherein the first signal is transponded by one of a plurality of beams to the gateway ground station having a plurality of antennae disposed to provide spatial diversity among each of the plurality of beams.

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23. (Original) A communications system, comprising:
a user terminal for transmitting and receiving data through a terrestrial-based network; and
wherein the user terminal communicates with a gateway via a stratospheric-based communications platform transponder.

24. (Original) The communications system of claim 23, wherein:
the user terminal includes a user terminal antenna characterizable by a beamwidth; and
the communications platform maintains an apparent position relative to the user terminal within the beamwidth of the user terminal antenna.

25. (Original) The communications system of claim 23, wherein the user terminal communicates with the communications platform in a first frequency band, and the communications platform communicates with the gateway in a second frequency band.

26. (Original) The communications system of claim 23, wherein the gateway comprises a plurality of gateway antennae, separated from each other by a distance sufficient to provide spatial diversity in communicating with the communications platform.

27. (Original) The communications system of claim 26, wherein the distance is at least 200 meters.